REMARKS

Claims 1-27 are the pending claims in the application. Claim 1 has been amended to more particularly point out the subject matter of the invention and now includes limitations from claims 2 and 12. Support for this amendment is found throughout the specification and specifically at page 10, paragraph [0037] and [0039] and in original Claims 1, 2 and 12. Claims 2 and 8 have been cancelled. Claims 3, 9, 12, 13, and 15 have been amended to correct inadvertent typographical errors and improper dependencies created by the amendment of claim 1 and cancellation of Claim 2. Claim 24 has been amended to correct an obvious inadvertent error. Support for this amendment is found in the specification at page 12, paragraph [0048]. No new matter has been introduced into the claims by these amendments. Reconsideration of the application in light of the amendments and remarks, which follow, is respectfully requested.

Claim Rejections Under 35 U.S.C. §103 (a)

The Examiner has rejected the claims under 35 U.S.C. § 103(a) as unpatentable over U.S. Patent No. 5,252,649 ("Hausmann"). The Examiner alleges that Hausmann discloses rubber compositions for tire tread members having plasticizer constituents which are fatty acid triglyceride compounds comprising >50% oleic acid triesters and wherein the oleic acid triesters are extracted from vegetable and/or sunflower oil. The examiner further alleges that Hausmann suggests diene elastomers and the claimed mass fraction of the present claims.

The Claimed Invention

The present invention is directed to a cross-linkable or cross-linked rubber composition usable as a tread of a tire, and to a tire incorporating this tread. The rubber composition is based on at least one diene elastomer and a plasticizer comprising a glycerol oleic triester, wherein the plasticizer comprises (1) one or more synthetic and/or natural

compounds not extracted from petroleum in a mass fraction of from 45% to 100%, said compounds comprising at least one glycerol fatty acid triester, and the fatty acids as a whole comprise oleic acid in a mass fraction equal to or greater than 70%, wherein the composition comprises from about 10 to about 40 phr of the compounds, and (2) one or more paraffinic, aromatic or naphthenic type plasticizing oils extracted from petroleum in a mass fraction of from 55% to 0%.

The Prior Art

Hausmann discloses a plasticizer constituent in a rubber mixture of a tread member of a pneumatic tire which contains at least partially one fatty acid triglyceride, preferably a natural rapeseed oil, in which more than 50% of the fatty acid residues are present as oleic acid residues in an oleic acid/linoleic acid ratio of greater than or equal to 2:1. *See* Abstract. The tires are said to have improved traction upon ice and snow. Hausmann teaches that the tires have a reduced low temperature rigidity and that very small amounts of rapeseed oil achieve such effects. *See* column 4, lines 32-40.

Indeed, a review of the Examples in Hausmann show that only 5% of rapeseed oil reduced the rigidity (ie, modulus E') of the tires at -40°C by 40%, while the same amount of sunflower seed oil reduced the rigidity of the tires at -40°C by 80%, (see also 5% triglyceride of oleic acid, which reduced the rigidity of the tires at -40°C by 91%). *See* Table 1. Moreover, the Shore A hardness of the tires was reduced in the presence of 5% rapeseed oil by 4% and the hardness was reduced by 8% in the presence of 5% sunflower oil (see also 5% triglyceride of oleic acid which reduced the hardness by 20%). *See* Table 1. Hausmann clearly teaches that only small amounts of rapeseed oil (e.g. 5 phr) "show high effectiveness." *See* column 4, lines 32-40. Accordingly, Hausmann indicates, given a more dramatic effect

seen with 5% of sunflower oil, that even less sunflower oil would be necessary to achieve the same high level of effectiveness observed with rapeseed oil.

While the tires of Hausmann comprising the rapeseed oil performed slightly better in skid tests than did conventional tires, the tires including the sunflower oil performed worse in skid tests (BPST), similar to those with the triglyceride of oleic acid. *See* Table 1.

There is no *Prima Facie* Case of Obviousness

The Hausmann patent does not support a *prima facie* case of obviousness. To establish a *prima facie* case of obviousness, three criteria must be met. First, there must be some suggestion or motivation in the cited references themselves or in the knowledge generally available to one of ordinary skill in the art to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Third, the combined references must teach or suggest all the claimed limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and must not be based on the Applicants disclosure. *In re Vaeck*, 947 F2d 488, 20 USPQ 2d 1438 (Fed. Cir. 1991); MPEP 2142.

In this case, Hausmann does not teach all the claim limitations of the present claims. The present claims are directed to a composition for use in a tire tread, which is based on one or more diene elastomers and a plasticizer comprising a glycerol oleic acid triester. The plasticizer of the present claims includes one or more synthetic and/or natural compounds not extracted from petroleum present in a mass fraction of from 45% to 100%, wherein the compounds have at least one glycerol fatty acid triester which comprises oleic acid in a mass fraction equal to or greater than 70% and wherein the composition comprises from about 10 to about 40 phr of the compound. The plasticizer of the present claims further includes or more plasticizing oils extracted from petroleum in a mass fraction of from 0% to 55%. The

plasticizing oils are selected from the group consisting of paraffinic, aromatic and naphthenic oils.

Applicants' claimed invention is not taught or suggested by Hausmann. Hausmann teaches the use of rapeseed oil in small quantities. *See* column 4, lines 32 to 40. It is known in the art that rapeseed oil comprises about 50% of oleic acid and generally not more than 55% oleic acid. *See, e.g.,* Hausmann, column 3, line 10. Hausmann further teaches that the preferred amount of rapeseed oil in the composition is 4-8 phr (*see* column 3, lines 60-65) and more preferably, 5phr (*see* column 5, lines 36-40 and Table 2 and Table 1). Table 1 shows that the best skid characteristics are found with just 5 phr rapeseed oil. *See* Examples 2 and 8. Reduced skid characteristics are seen with the same amount of sunflower oil (Example 12) or a triglyceride of oleic acid (Example 11).

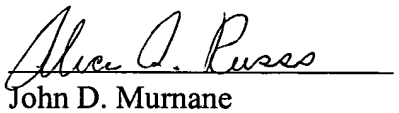
Accordingly, the Examples of Hausmann actually teach away from the present invention which includes a cross-linkable or cross-linked rubber composition useable for constituting a tire tread, wherein the composition comprises in mass fraction from about 45% to 100% of a synthetic or natural compound comprising at least 70% oleic acid, and wherein the composition comprises 10 to 40 phr of the composition. In fact, the suggested teaching of Hausmann is <u>at best</u> to use less than 5 phr sunflower oil or a triglyceride of oleic acid to achieve the desired result, which is obtained with 5% of rapeseed oil. *See* Tables 1 and 2 of Hausmann. In fact, as noted above, Hausmann teaches away from the present invention because Hausmann teaches that both sunflower oil (Example 12) and a triglyceride of oleic acid (Example 11) have worse skid characteristics than conventional tires (Example 1) and tires including rapeseed oil (Examples 2 and 8). *See* Table 1.

Therefore, Applicants respectfully request withdrawal of the rejection of the claims as obvious under 35 U.S.C. § 103(a) in view of Hausmann.

Conclusion

In light of the Amendments and remarks made herein, Applicants believe the present application is in condition for allowance. Accordingly, favorable reconsideration of the application is earnestly solicited. Please send any further correspondence relating to this application to the undersigned attorneys at the address below.

Respectfully submitted,



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